

Service Manual

Dolby NR-Equipped
Stereo Cassette Deck

Cassette Deck
RS-B106



Color

(K)...Black Type
(S)...Silver Type



Color	Areas
(K) (S)	[E].....All European areas except United Kingdom.
(K) (S)	[EK].....United Kingdom.
(K) (S)	[EH].....Holland.
(K) (S)	[EG].....F.R. Germany.
(K) (S)	[XA].....Asia, Latin America, Middle East and Africa.
(K) (S)	[XL].....Australia.

RS-D550W MECHANISM SERIES

SPECIFICATIONS

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
REC/PLAY	Solid Permalloy head
Erasing	Double-gap ferrite head
Motors	Electronically controlled DC motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speed	4.8 cm/sec.
Frequency response (w/o Dolby N.R.)	
METAL	20 Hz~16 kHz
	30 Hz~15 kHz (DIN)
CrO₂	20 Hz~15 kHz
	30 Hz~15 kHz (DIN)
NORMAL	20 Hz~15 kHz
	30 Hz~15 kHz (DIN)
Wow and flutter	0.08% (WRMS)
	±0.2% (DIN)
Fast Forward and Rewind Time	
	Approx. 95 seconds with C-60 cassette tape

S/N (signal level = max recording level, CrO₂ type tape)

DOLBY NR in 66 dB
DOLBY NR out 57 dB

Input sensitivity and impedance

MIC 0.25 mV/400 Ω~10 kΩ
LINE 60 mV/47 kΩ

Output voltage and impedance

LINE 400 mV/1.5 kΩ
HEADPHONES 80 mV/8 Ω

Power consumption

Power supply 15W

For Australia AC 50 Hz/60 Hz, 240V

For continental Europe AC 50 Hz/60 Hz, 220V

For others AC 50 Hz/60 Hz, 110V/127V/220V/240V

Dimensions (W×H×D) 430 × 115 × 221.5 mm

Weight 3.4 kg

Note:

Specifications are subject to change without notice.
Weight and dimensions are approximate.

* Dolby noise reduction manufactured under license from
Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol are trade marks of Dolby
Laboratories Licensing Corporation.

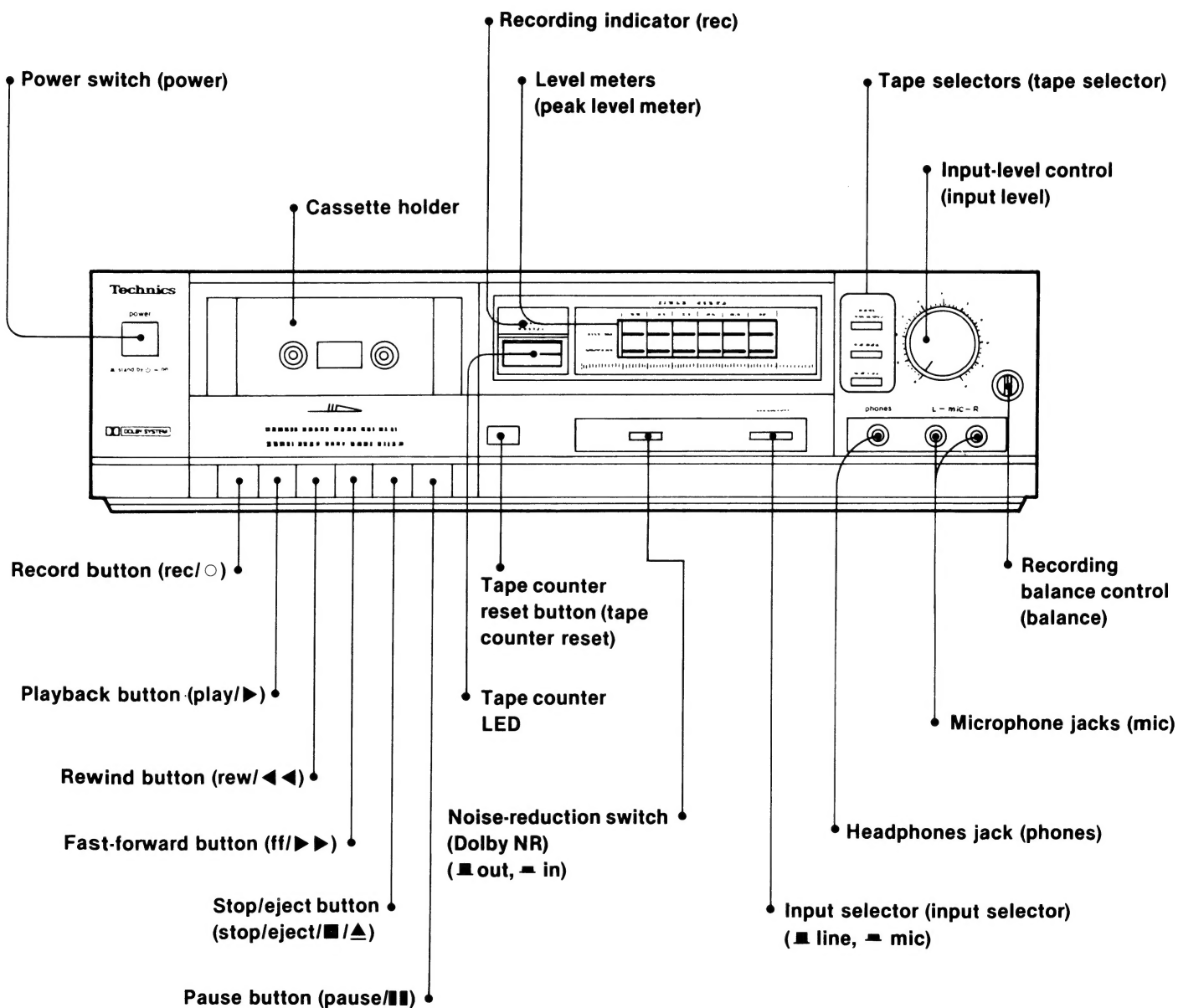
Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

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■ LOCATION OF CONTROL



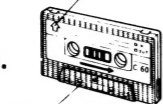
■ OPERATION

Recording

1 Power: "on" (I → II)

2 Press and insert the tape cassette.

The side to be recorded facing outward.



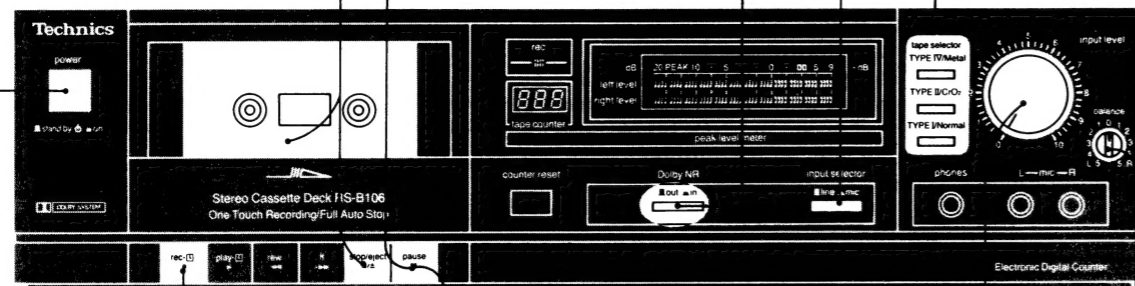
Part where tape is exposed facing downward.

3 Press.

4 "out" or "in".

5 Select the sound source.

6 Set to position corresponding to type of tape to be used.



7 Press. (Recording stand-by mode)

8 Begin the program source to be recorded.

11 Press. (Recording will begin.)

9 Adjust the recording level. (Refer to below.)

10 Adjust left/right volume balance.

To erase recorded sounds

1. Set the Dolby noise-reduction switch to the "out" position.
2. Set the input level control to the minimum (0) position.
3. Prepare in the same way as for recording, and then let the tape run.

Note that any sounds on the tape will be automatically erased if a new recording is made on that part of the tape.

Adjustment of the recording level

The numbers which you should use as a guide for the adjustment of the tape level will differ depending upon the type of tape.

Normal tape CrO ₂ tape	Metal tape
00 (+3 dB)	+5 dB

Timer Recording/Playback

If an audio timer (option) is connected to this unit, recording of a radio broadcast, or tape playback, will automatically begin at the preset time. Connect the AC power cord of this unit to the power source outlet of the timer. (See the operating instructions of the timer for detailed information.)

Timer recording

1. Prepare for recording.
(Follow steps 1 through 10 of "Recording". After adjusting the recording level, press the stop button and the pause button.)
2. Set the timer to the desired recording-start time.
3. Press the record button.
(At the set time, the power will switch ON and the broadcast will be recorded.)

After setting the timer

Make sure that the power switch is set to the "on" position.

Timer playback

1. Rewind the tape to the position from which you want playback to begin.
2. Set the timer to the desired playback-start time.
3. Press the playback button.
(At the set time, the power will be switched ON and the playback will begin.)

After setting the timer

Make sure that the power switch is set to the "on" position.

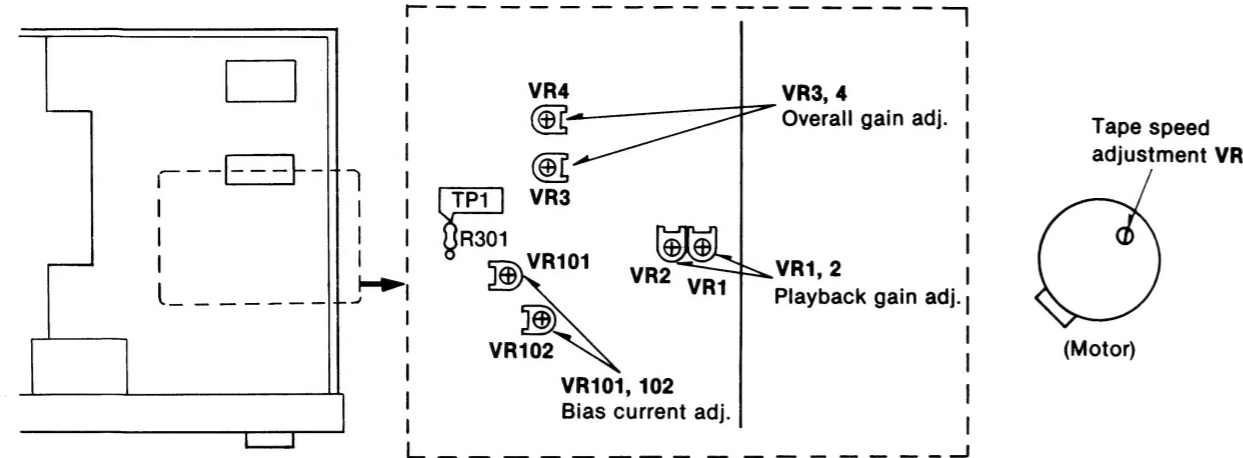
■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1	How to remove the case cover	Ref. No. 2	How to remove the mechanism unit
Procedure 1	• Remove the 4 screws (1~4).	Procedure 1 → 2	1. Push the eject button (see fig. 1). 2. Remove the 6 screws (1~6). 3. Remove the counter belt (for mechanism).
	 Fig. 1		 Fig. 2
Ref. No. 3	How to remove the LED meter P.C.B.	Ref. No. 4	How to remove the tape selector P.C.B.
Procedure 1 → 3	• Remove the 2 screws (1, 2). • Receive the 2 tabs aside.	Procedure 1 → 4	1. Remove the 2 screws (1, 2). 2. Pull out the volume knob.
	 Fig. 3		 Fig. 4
Ref. No. 5	How to remove the front panel	Ref. No. 6	How to remove the main P.C.B.
Procedure 1 → 2 → 3 → 4 → 5	• Remove the 4 screws (1~4).	Procedure 1 → 6	1. Remove the 2 screws (1, 2). 2. Open the 2 tabs aside, and then pull down the back chassis.
	 Fig. 5		 Fig. 6

* Serial No. Indication

- The serial number plate of the product is attached to the back chassis (shown in fig. 6).

MEASUREMENT AND ADJUSTMENT METHODES



Measurement Condition

- Input level controls; Maximum
- Balance controls; Center
- Tape select switch; Normal
- Dolby NR switch; Out

- Make sure heads are clean
- Make sure capstan and pressure roller are clean.
- Judgeable room temperature $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$)

Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

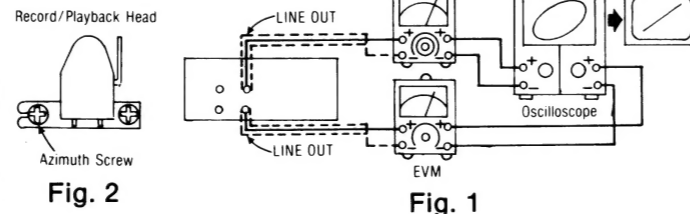
- ATT (Attenuator)
- DC voltmeter
- Resistor (600Ω)

Test tape

- Head azimuth adjustment (8kHz, -20dB); QZZCFM
- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB); QZZCFM
- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment
 - Normal reference blank tape; QZZCRA
 - CrO_2 reference blank tape; QZZCRX
 - Metal reference blank tape; QZZCRZ

Head azimuth adjustment

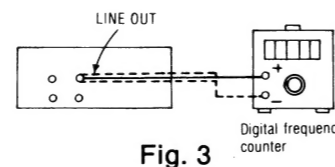
1. Test equipment connection is shown in Fig. 1.
2. Playback the azimuth adjusted part (8kHz, -20dB) of the test tape (QZZCFM) and regulate the angle adjusting screw so that the outputs of L-CH and R-CH are maximized. (When the adjusting positions are different with L-CH and R-CH, find a position where the outputs of L-CH and R-CH are balanced, and then make the adjustment.)
3. At the same time, draw a lissajous waveform and eliminate phase deflection.



Tape speed adjustment

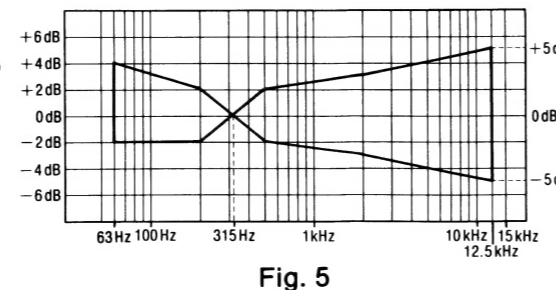
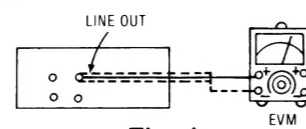
1. Test equipment connection is shown in Fig. 3.
2. Playback the middle part of the test tape (QZZCWAT).
3. Adjust the VR in the motor so that the output is within the standard.

Standard value: $3000 \pm 10\text{ Hz}$



Playback frequency response

1. Test equipment connection is shown in Fig. 4.
2. Playback the playback frequency response part (315Hz, 12.5kHz~63Hz, -20dB) of the test tape (QZZCFM).
3. Check that the frequency is within the range shown in Fig. 5 for both L-CH and R-CH.



Playback gain adjustment

1. Test equipment connection is shown in Fig. 4.
2. Playback the playback gain adjusted part (315Hz, 0dB) of the test tape (QZZCFM).
3. Adjust VR1, (L-CH) (VR2 (R-CH)) so that the output is within the standard.

Standard value: $0.4 \pm 0.5\text{ dB}$ (0.02V)

Overall frequency response

1. Test equipment connection is shown in Fig. 6.
2. Set the tape selector switch to the normal position.
3. Set a normal blank tape (QZZCRA) and record by applying signal (50Hz, 100Hz, 200Hz, 500Hz, 1kHz, 4kHz, 8kHz and 10kHz), 20dB attenuated from the reference input level signal (1kHz, -24dB).
4. Playback the signal recorded in step 3, and check that the level of each output frequency is within the range shown in Fig. 7 in comparison with the reference frequency (1kHz).
5. If it is not within the standard range, adjust the bias current by VR101 (L-CH) (VR102 (R-CH)) so that the frequency level is within the standard.
 - Level up in high frequency range Increase the bias current.
 - Level down in high frequency range Decrease the bias current.
6. After that increase the signal recorded on CrO_2 blank tape (QZZCRX) and metal blank tape (QZZCRZ) up to 12.5kHz and adjust in the same way as mentioned above and check that the frequency level is within the range shown in Fig. 8.

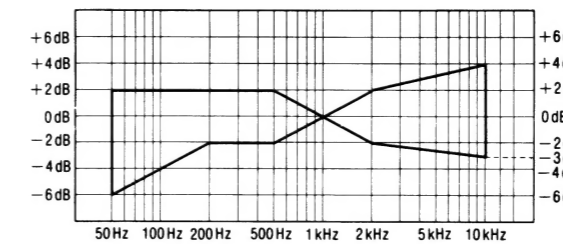
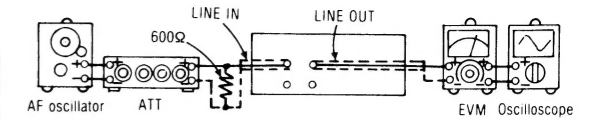


Fig. 7

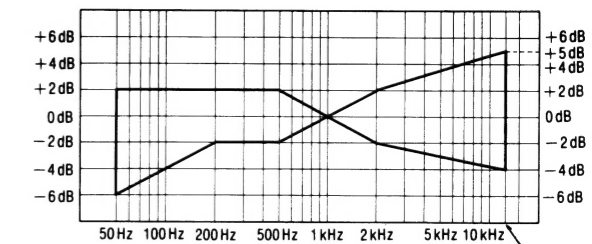


Fig. 8

Overall gain adjustment

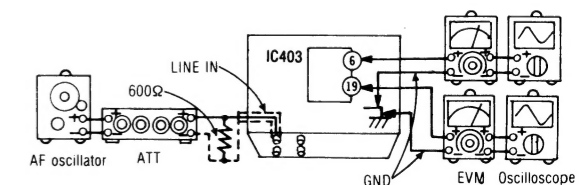
1. Test equipment connection is shown in Fig. 6.
2. Set the tape selector switch to the normal position.
3. Set a normal blank tape (QZZCRA) and apply the reference input level signal (1kHz, -24dB) in record pause mode.
4. Adjust the output 0.42V by attenuator and then record.
5. Playback the signal recorded in step 3, and check that the output is within the standard.
6. If it is not within the standard, adjust VR3 (L-CH) (VR4 (R-CH)) and repeat the step (2), (3) and (4) until the output is within the standard.

Standard value: $0.4\text{ V} \pm 0.05\text{ V}$

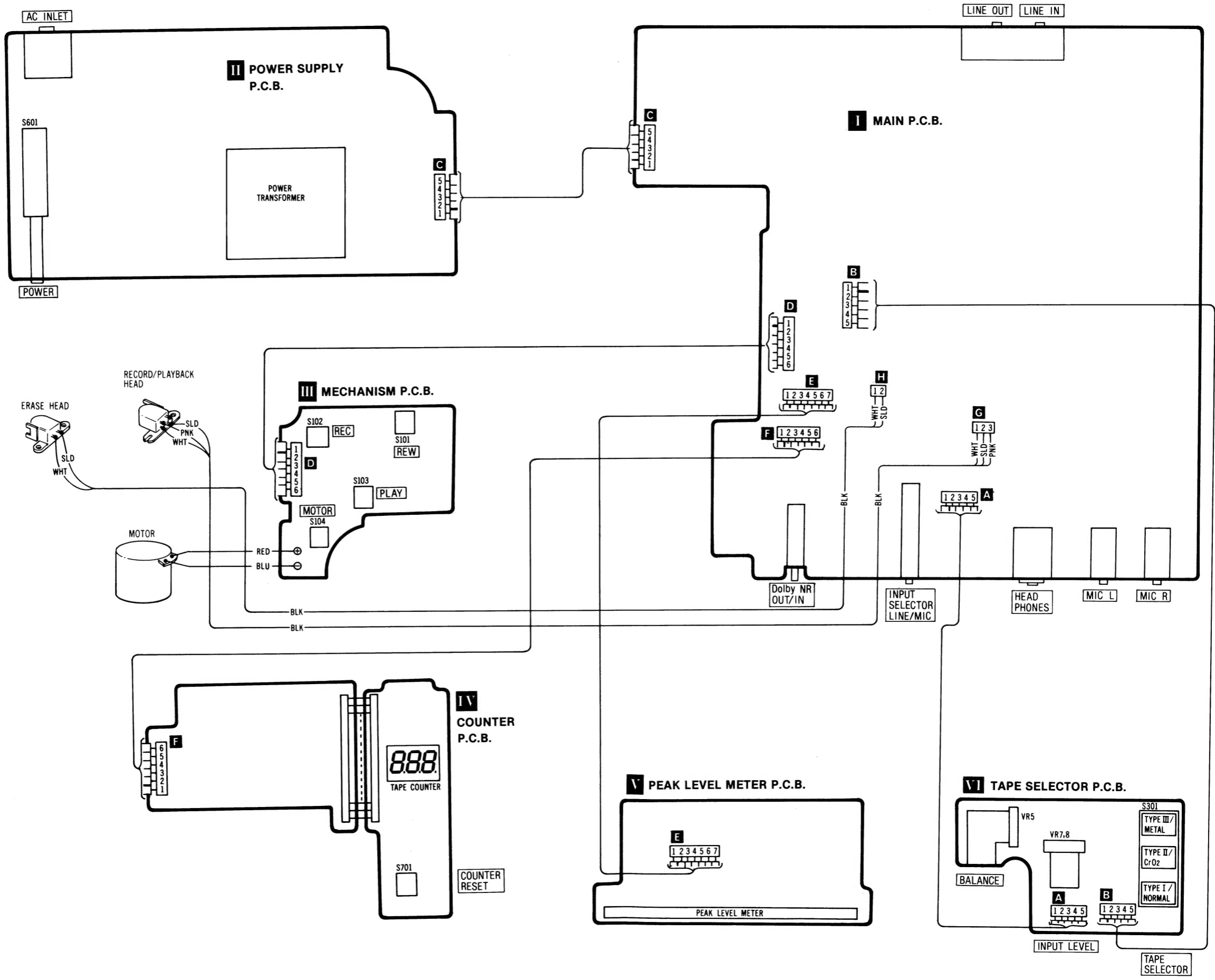
Dolby NR circuit

1. Test equipment connection is shown in Fig. 9.
2. Set a normal tape and apply 5kHz signal in record pause mode.
3. Adjust by attenuator so that the output between terminal ⑥ (L-CH) (terminal ⑩ (R-CH)) of IC403 and ground is 12.3mV.
4. Turn NR switch ON, and check that the level changes as specified from the level in NR out mode.

Standard value: $8 \pm 1.5\text{ dB}$



■ WIRING CONNECTION DIAGRAM



RESISTORS AND CAPACITORS

- Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice. Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. The unit of resistance is OHM (Ω).
K=1000 Ω , M=1000k Ω
4. The unit of capacitance is MICROFARAD (μ F).
P=10⁻⁶ μ F.

Numbering System of Resistor

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W	J : $\pm 5\%$
ERG : Metal Oxide	25 : 1/4W	G : $\pm 2\%$
ERC : Solid	2F : 1/4W	K : $\pm 10\%$
	S2 : 1/4W	
	S1 : 1/2W	
	12 : 1/2W	

Numbering System of Capacitor

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
ECEA...N : Non-polar Electrolytic	2R3 : 2.3V	05 : 50V DC	C : $\pm 0.25\mu$ F
ECEA : Electrolytic	DC	1H : 50V DC	J : $\pm 5\%$
ECCD : Ceramic	OJ : 6.3V	1 : 125V DC	K : $\pm 10\%$
ECKD : Ceramic	1C : 16V	2H : 500V DC	Z : $+80\%, -20\%$
ECQM : Polyester	1E : 25V	KC : 400V AC	M : $\pm 20\%$
ECQV : Polyester	1V : 35V		
ECQP : Polyester	1H : 50V		
ECKF : Ceramic	50 : 50V		
	25 : 25V		
	2A : 100V		

RESISTORS

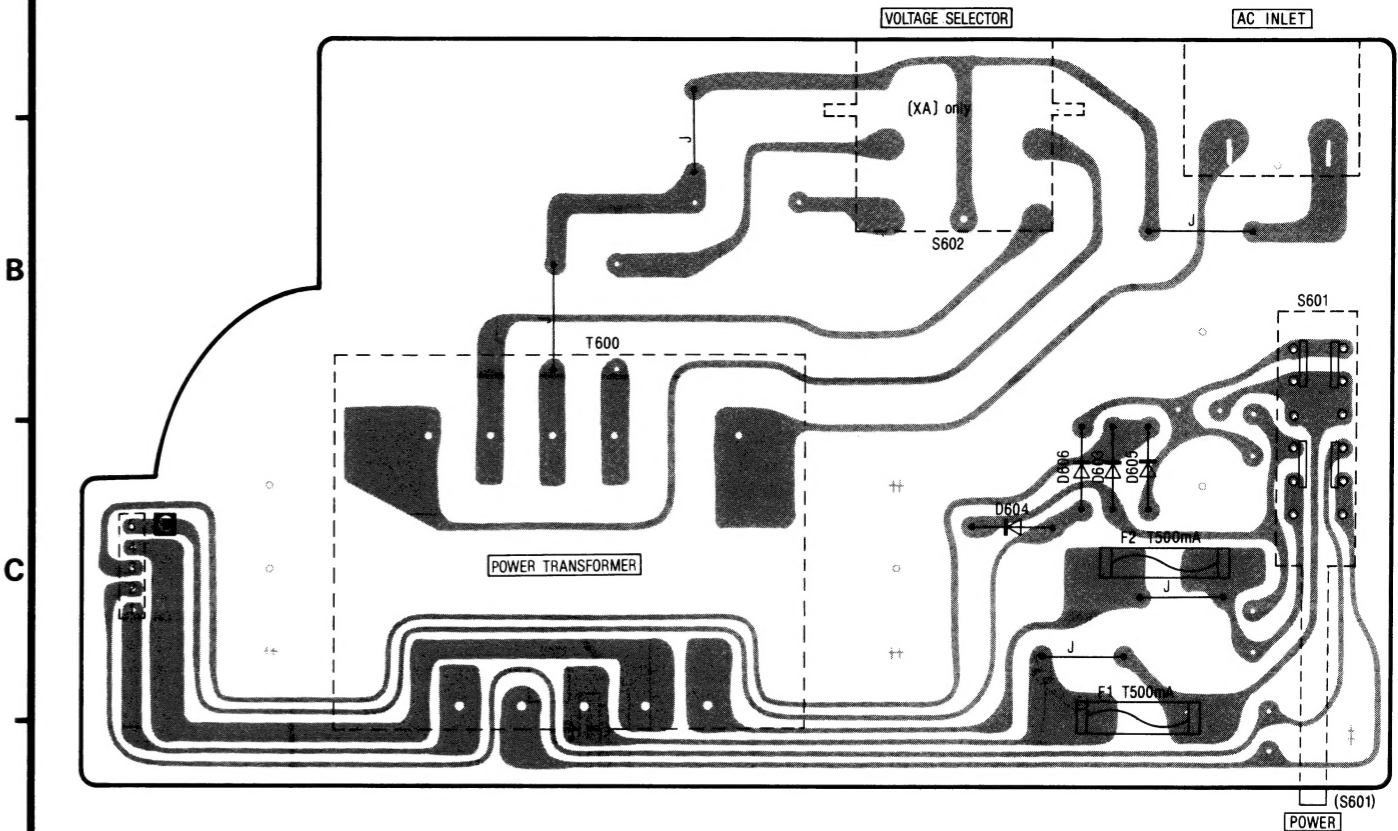
Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R1, 2	ERDS2TJ101	100	R80	ERDS2TJ222	2.2k	R307	ERDS2TJ561	560
R3, 4	ERDS2TJ155	1.5M	R81, 82	ERDS2TJ222	2.2k	R308	ERDS2TJ221	220
R5, 6	ERDS2TJ104	100k	R83, 84	ERDS2TJ472	4.7k	R309	ERD2FCG820	82
R7, 8	ERDS2TJ101	100	R85, 86	ERDS2TJ223	22k	R311	ERDS2TJ473	47k
R9, 10	ERDS2TJ820	82	R87, 88	ERDS2TJ393	39k	R313	ERDS2TJ391	390
R11, 12	ERDS2TJ562	5.6k	R89, 90	ERDS2TJ682	6.8k	R401	ERDS2TJ242	2.4k
R13, 14	ERDS2TJ274	270k	R91, 92	ERDS2TJ272	2.7k			
R15, 16	ERDS2TJ472	4.7k	R95, 96	ERDS2TJ221	220	R451, 452	ERDS2TJ184	180k
R17	ERDS2TJ103	10k				R453, 454	ERDS2TJ274	270k
R18	ERD25FJ103	10k	R97, 98	ERDS2TJ223	22k	R455, 456	ERDS2TJ473	47k
			R99, 100	ERDS2TJ331	330	R457, 458	ERDS2TJ472	4.7k
R19, 20	ERDS2TJ104	100k	R101	ERDS2TJ473	47k	R461, 462	ERDS2TJ473	47k
R22	ERDS2TJ473	47k	R105, 106	ERDS2TJ103	10k	R463, 464	ERDS2TJ332	3.3k
R23	ERD25TJ333	33k	R113, 114	ERDS2TJ102	1k	R468	ERD25FJ242	2.4k
R24	ERDS2TJ103	10k	R115, 116	ERDS2TJ473	47k	R470	ERDS2TJ103	10k
R26	ERD25FJ220	22	R119, 120	ERDS2TJ184	180k	R471	ERDS2TJ102	1k
R27, 28	ERD25FJ101	100	R121, 122	ERD25FJ102	1k	R472	ERD25TJ105	1M
R29, 30	ERDS2TJ101	100	R123, 124	ERDS2TJ151	150			
R31, 32	ERDS2TJ273	27k	R125, 126	ERDS2TJ560	56	R601, 602	ERDS2TJ681	680
R33	ERDS2TJ222	2.2k				R701	ERDS2TJ102	1k
R35	ERDS2TJ103	10k	R128	ERDS2TJ102	1k	R703	ERDS2TJ472	4.7k
			R129, 130	ERDS2TJ103	10k	R705	ERDS2TJ683	68k
R37, 38	ERDS2TJ155	1.5M	R131	ERDS2TJ103	10k	R706	ERD25TJ333	33k
R39, 40	ERDS2TJ683	68k	R201	ERG1SJ470	47	R707, 708	ERDS2TJ472	4.7k
R43, 44	ERDS2TJ473	47k	R202	ERG12SJ680	68	R711	ERDS2TJ102	1k
R45, 46	ERDS2TJ273	27k	R217	ERDS2TJ272	2.7k	R721, 722	ERDS2TJ912	9.1k
R47, 48	ERDS2TJ102	1k	R218	ERDS2TJ103	10k	R723, 724	ERDS2TJ103	10k
R49, 50	ERDS2TJ122	1.2k	R220	ERDS2TJ272	2.7k	R725	ERDS2TJ102	1k
R51, 52	ERDS2TJ154	150k	R221	ERDS2TJ333	33k			
R53, 54	ERD25FJ222	2.2k	R222	ERDS2TJ153	15k	R729	ERDS2TJ103	10k
R63, 64	ERDS2TJ561	560				R731, 732	ERDS2TJ273	27k
R65, 66	ERDS2TJ103	10k	R223	ERDS2TJ101	100	R733, 734	ERDS2TJ222	2.2k
			R301	ERD25FJ1R0	1	R735, 736	ERDS2TJ102	1k
R68	ERDS2TJ562	5.6k	R303, 304	ERDS2TJ223	22k	R751	ERDS2TJ560	56
R79	ERD25FJ222	2.2k	R305, 306	ERDS2TJ100	10			

CAPACITORS

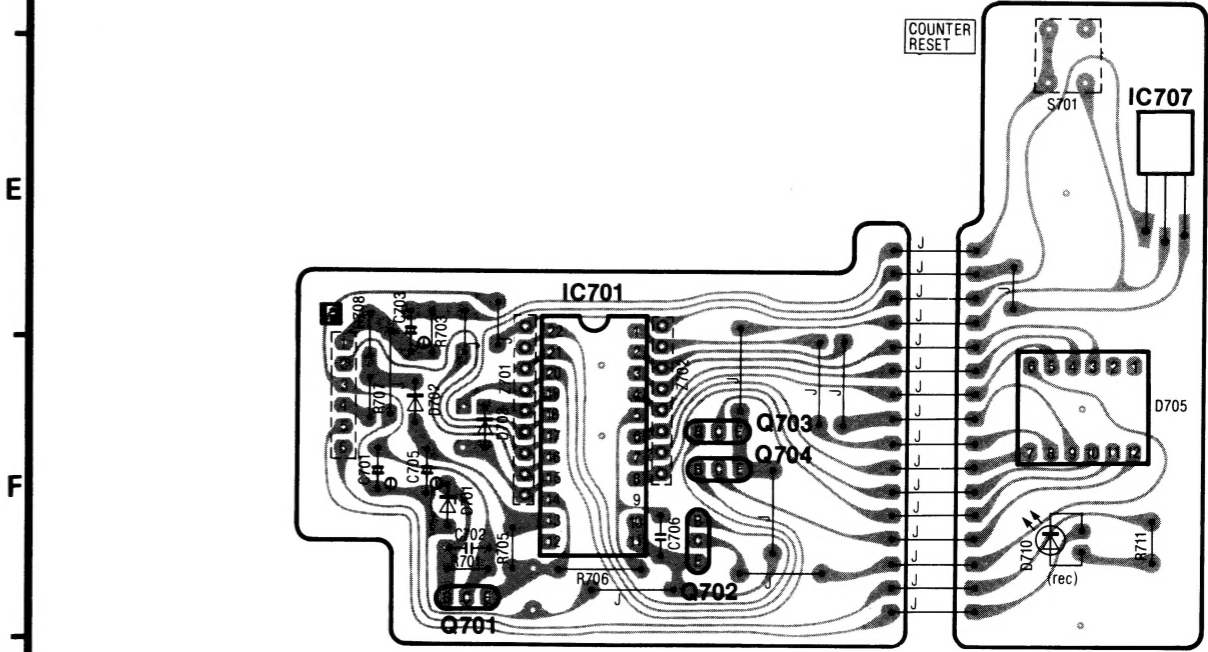
Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
C1, 2	ECKD1H122KB	0.0012	C67, 68	ECQB1H562KZ	0.0056	C455, 456	ECQV1H473JZ	0.047
C3, 4	RCBS1H681KBY	680p	C69, 70	ECQB1H472KZ	0.0047	C457, 458	ECQB1H333JZ	0.033
C5, 6	RCBS1H101KBY	100p	C71, 72	ECQB1H392KZ	0.0039	C459, 460	RCBS1H221KBY	220p
C7, 8	ECEA0JU101	100	C73, 74	ECEA1HU010	1	C461, 462	ECQB1H472JZ	0.0047
C9, 10	RCBS1H681KBY	680p	C75, 76	RCBS1H561KBY	560p	C463, 464	ECEA1EU4R7	4.7
C11, 12	ECQB1H123JZ	0.012	C77, 78	RCBS1H121KBY	120p	C466	ECEA1CU100	10
C13, 14	ECEA1CU100	10	C83, 84	ECCD1H220J	22p	C601, 602	ECBT1E223ZF	0.022
C18	ECEA1HU010	1	C101, 102	ECCD1H101J	100p	C603, 604	ECEA1CU221	220
C31, 32	ECEA1CU100	10	C103	ECEA1CU100	10	C605, 606	ECEA1CU222	2200
C33, 34	RCBS1H101KBY	100p	C104	ECEA1CU331	330	C701	ECEA1CU470	47
C35, 36	ECCD1H220J	22P	C301	ECQP1153JZ	0.015	C702	ECKD1H122KB	0.0012
C37, 38	ECEA1HU010	1	C302	ECEA1EU4R7	4.7	C703	ECEA1HU2R2	2.2
C39, 40	ECBT1E223ZF	0.022	C303, 304	ECQB1H562KZ	0.0056	C705	ECEA1HU2R2	2.2
C41, 42	ECEA1HUR22	0.22	C305, 306	ECQB1H472KZ	0.0047	C706	RCBS1H221KBY	220p
C43, 44	RCBS1H221KBY	220p	C308	ECEA1CN100	10	C721, 722	ECQV1H563JZ	0.056
C47, 48	ECEA1CU221	220	C309	ECEA1AU220	22	C727, 728	ECEA1CU330	33
C53, 54	ECEA1CU100	10	C310	ECEA1HU010	1	C731	ECBT1E223ZF	0.022
C61, 62	ECEA1HU2R2	2.2	C450	ECEA1HU010	1	C732	ECEA1CU220	22
C63, 64	ECQB1H222KZ	0.0022	C451, 452	ECQV1H104JZ	0.1			
C65, 66	ECQB1H682KZ	0.0068	C453, 454	ECQV1H334JZ	0.33			

PRINTED CIRCUIT BOARDS

POWER SUPPLY P.C.B.



COUNTER P.C.B.



A



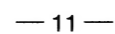
III



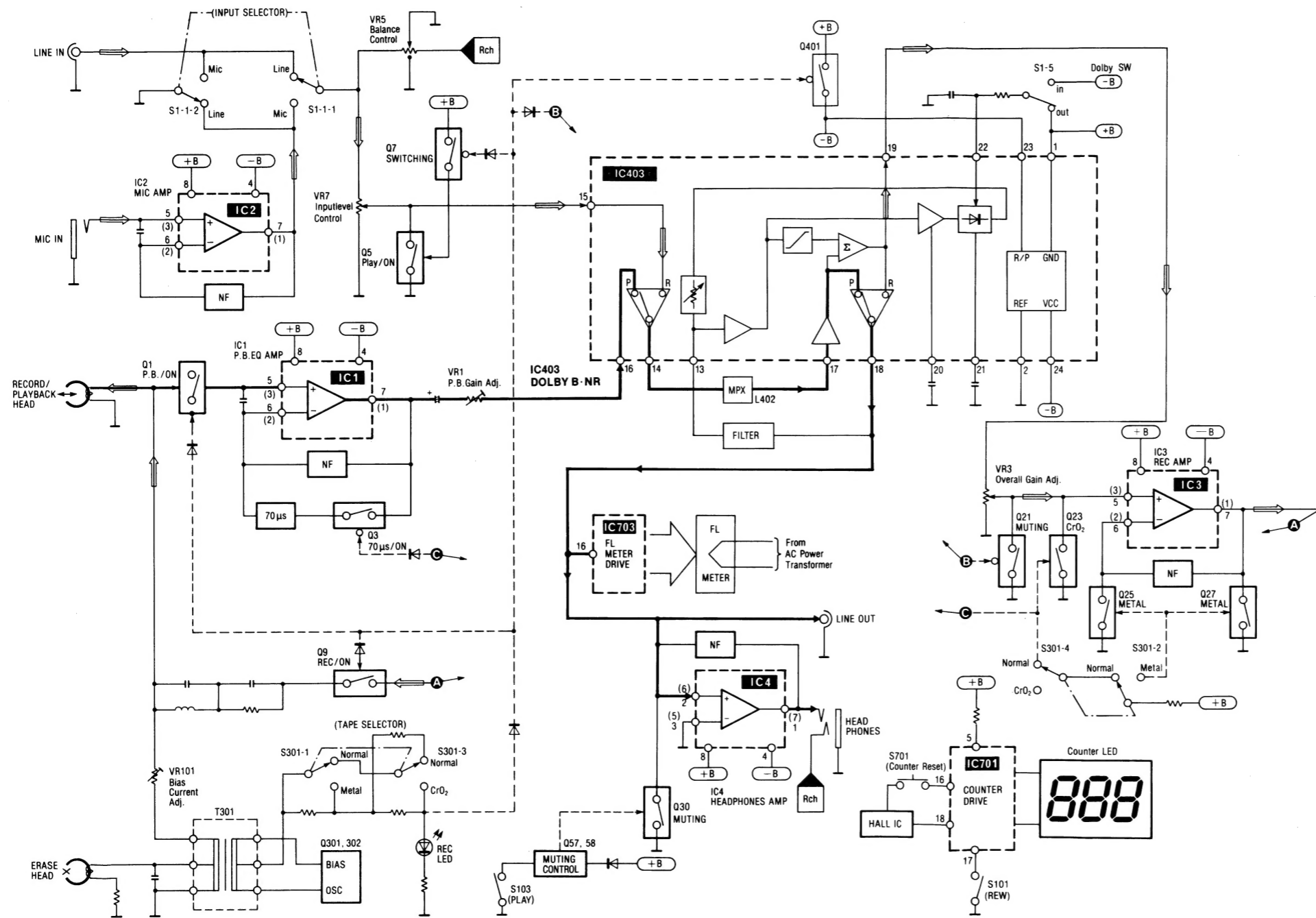
V



VI



■ BLOCK DIAGRAM



■ ELECTRICAL PARTS LIST

- Notes:**
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
 2. Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
 3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
INTEGRATED CIRCUITS			COILS		
IC1	M5220L	Integrated Circuit	L101, 102	SLOX303-1K	Peaking Coil
IC2, 3, 4	M5218L	Integrated Circuit	L401, 402	QLM9Z10K	MPX Coil
IC403	NE657N	Integrated Circuit	COMBINATION PARTS		
IC701	LM6417E589	Integrated Circuit	Z701	EXBF9E822J8R	Combination Part
IC703, 704	BA6146	Integrated Circuit	Z702	EXBF8E561J4R	Combination Part
IC707	DN6838-A	Integrated Circuit	FL METER		
TRANSISTORS			FL1	SADBG368Z	FL Meter
Q1, 2	2SJ40D	FET	TRANSFORMERS		
Q3, 4	2SA1115E	Transistor	T301	QLB0202K	Bias Oscillation Coil
Q5, 6	2SC2603EFG	Transistor	T600 [XA]	Δ SLT5L269W	Power Transformer
Q7	UN4113	Transistor	T600 [EK, XL]	Δ SLT5L267W	Power Transformer
Q9, 10	2SK381D	FET	T600 [other]	Δ SLT5L268W	Power Transformer
Q21, 22	2SB894R	Transistor	FUSES		
Q23-28	2SC2603EFG	Transistor	F1 [EK]	Δ XBA2C05TB0	250 V, T500mA
Q29, 30	2SD1450R	Transistor	F1 [other]	Δ XBAQ0003	250 V, T500mA
Q57	2SC2603EFG	Transistor	SWITCHES		
Q58	2SA1115E	Transistor	S1	SSH3701	Push Switch (Incl/Mic)
Q301, 302	2SC3311-Q	Transistor	S101-104	SSP83	Tutch Switch (Rew/Rec/Mute/Motor)
Q401	2SJ40D	Transistor	S301	SSH2109	Push Switch (Metal/CrO ₂ /Normal)
Q601	2SD1265-0	Transistor	S601	Δ SSH1069	Power Switch
Q602	2SB744Q	Transistor	S602 [XA] only	Δ SSR187-1	Voltage Selector
Q701-704, 705, 706	2SC2603EFG	Transistor	S701	SSG13	Touch Switch (Counter Reset)
DIODES & RECTIFIERS			JACKS		
D1-5, 7, 8, 61, 62	1SS133	Diode	J1	QJA0454ZC	Mic Jack
D63	MTZ8R2B	Zener	J2	QJA0455ZC	Headphones Jack
D301	1S2473	Diode			
D452	1S2473	Diode			
D453	1SS133	Diode			
D601	Δ MTZ20BT77	Zener			
D603-606	Δ 1SR35200	Rectifier			
D701	MTZ5R6BT77	Zener			
D702, 703	1SS133	Diode			
D705	SVGLB203DN1	LED			
D710	SLV31VC3	LED			
VARIABLE RESISTORS					
VR1, 2	QVNB3A00B223	P.B. Gain Adj. VR			
VR3, 4	QVNB3A00B473	Overall Gain Adj. VR			
VR5	EWHFDAF15G25	Balance Control			
VR7, 8	EWCS5A000A54	Input Level Control			
VR101, 102	QVNB3A00B104	Bias Current Adj. VR			

SCHEMATIC DIAGRAM

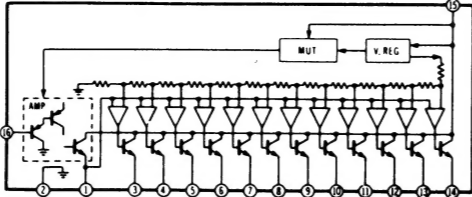
Notes:
(This schematic diagram may be modified at any time with the development of new technology.)
* This is the basic circuit diagram of this unit.
Note that part of the circuit is subject to change depending on the

- **S1-1-1 ~ S1-1-4:** Input selector switch in "line" position.
- **S1-5:** Noise reduction switch in "OUT" position.
- **S101:** REW switch in "OFF" position.
- **S102:** REC switch in "OFF" position.
- **S103:** MUTE switch in "OFF" position.
- **S104:** Motor switch in "OFF" position.
- **S301:** Tape selector switch in "TYPE I / Normal" position. (TYPE IV / Metal ↔ TYPE III / CrO₂ ↔ TYPE I / Normal)
- **S601:** Power switch in "ON" position.
- **S602:** Voltage selector in "240V" position. (JXA only)
- **S701:** Counter reset switch.
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise. 1K=1,000(Ω), 1M=1,000k(Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
- ().....Voltage values at record mode.
- CrO₂.....Voltage values at CrO₂ tape mode.
- Metal.....Voltage values at Metal tape mode.
- B.....Voltage values at Dolby B NR mode.
- For measurement use EVM.
- () indicates B (bias).
- () indicates the flow of the playback signal.
- () indicates the flow of the record signal.
- **Important safety notice:**
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

- * Caution !**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
- * Cover the parts boxes made of plastics with aluminum foil.
 - * Ground the soldering iron.
 - * Put a conductive mat on the work table.
 - * Do not touch the legs of IC or LSI with the fingers directly.

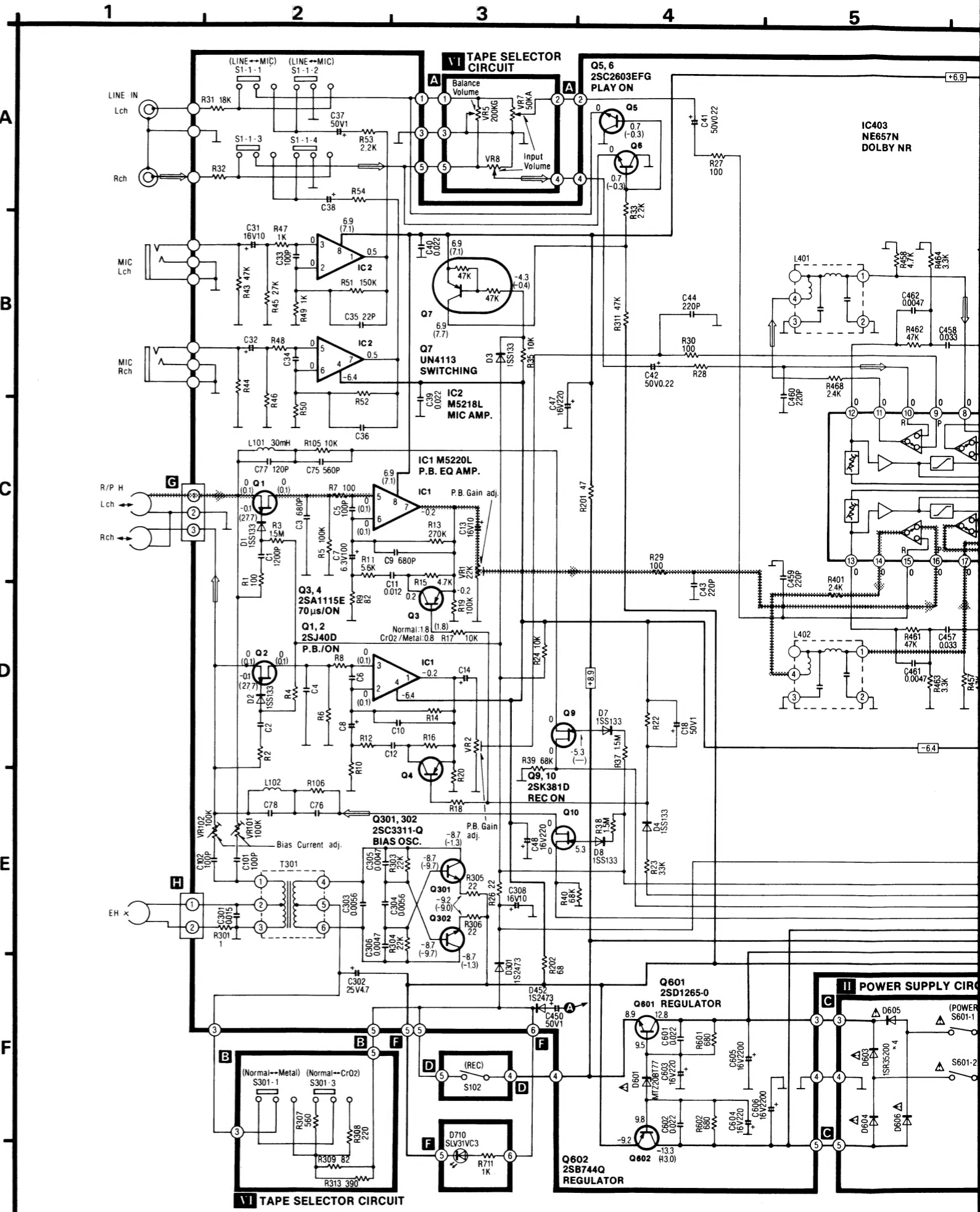
EQUIVALENT CIRCUIT

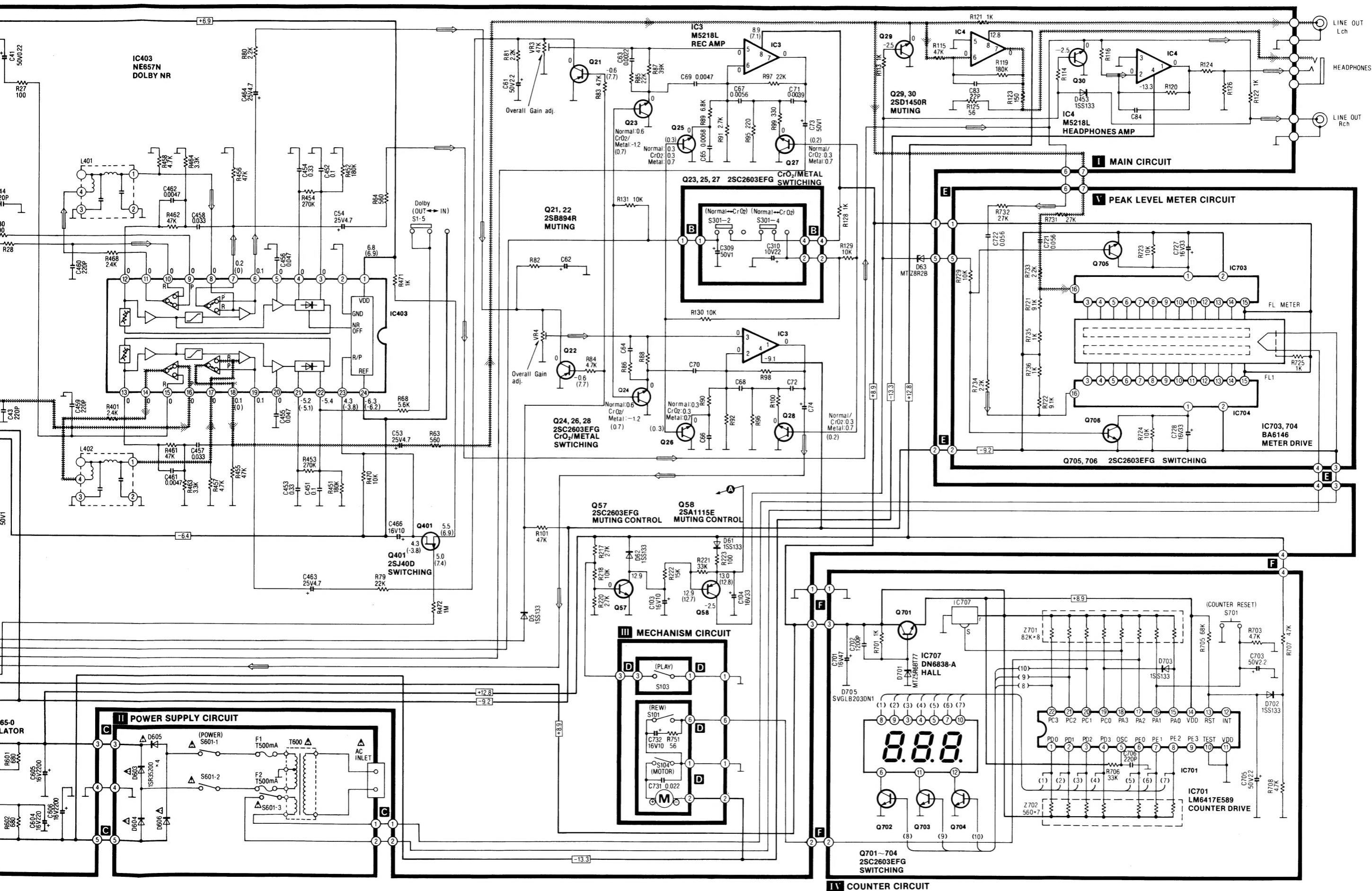
IC703, 704: BA6146



SPECIFICATIONS * Input level control...MAX

Playback S/N ratio * Test tape...QZZCFM	Greater than 45dB
Overall distortion * Test tape ...QZZCRA for Normal ...QZZCRX for CrO ₂ ...QZZCRZ for Metal	Normal..... Less than 3.5% CrO ₂ , Metal..... Less than 4%
Overall S/N ratio * Test tape...QZZCRA	Greater than 43dB (without NAB filter)



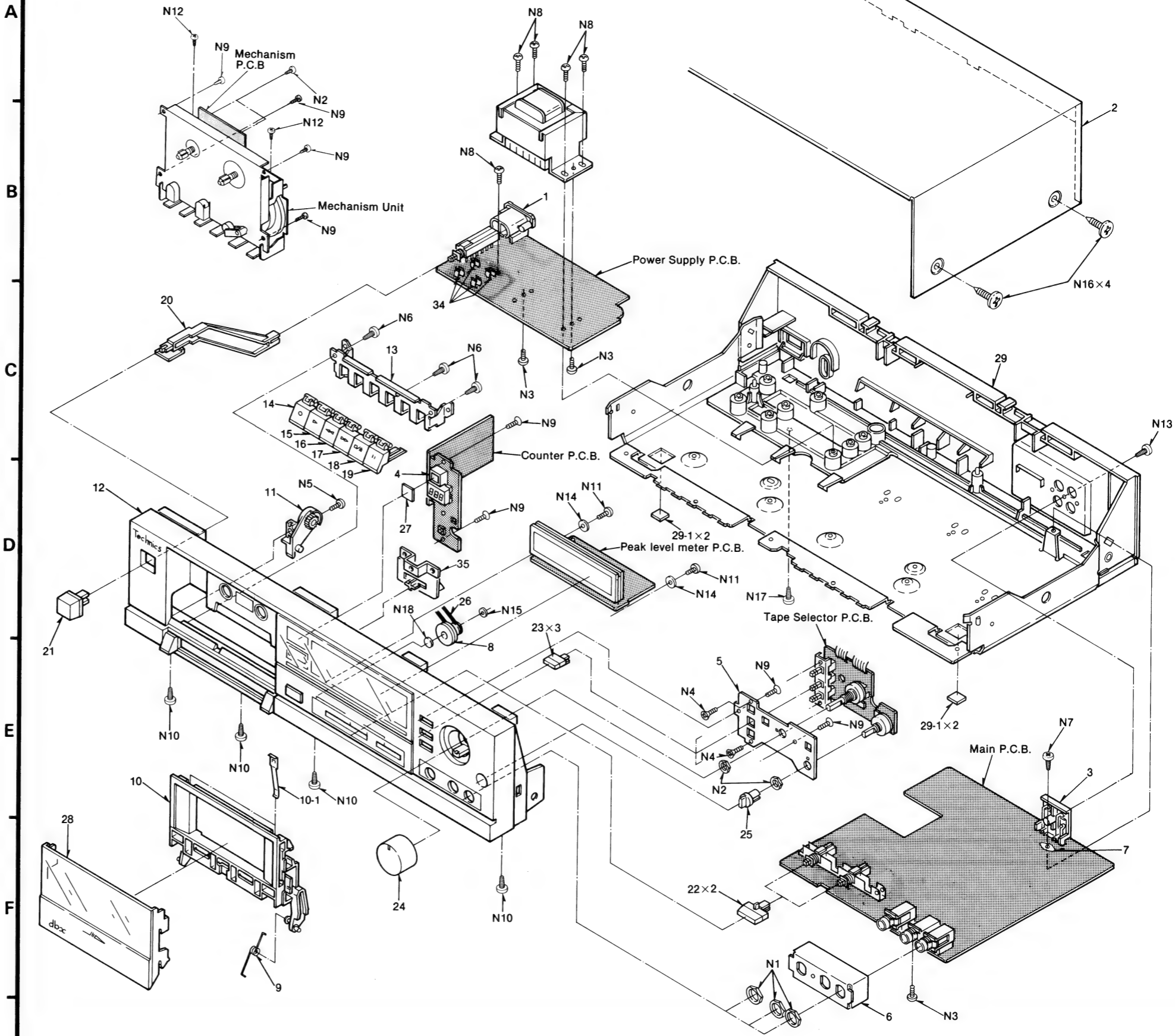


REPLACEMENT PARTS LIST

- Notes:
- Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
 - Important safety notice:
 - Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
 - Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
 - \odot -marked parts are used for black only, while \circ -marked parts are for silver type only.
 - Part other than \odot - and \circ -marked are use for both black and silver type.
 - The parenthesized numbers in the column of description stand for the quantity per set.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS					
1 [XL]	Δ SJS9237	AC Inlet	(1)	31	SJT30643-V 6 Pin Connector (1)
1 [other]	Δ SJS9236	AC Inlet	(1)	32	QJP1920TN 2 Pin Plug (1)
2	\odot SKC1920S98	Case Cover	(1)	32	QJP1921TN 3 Pin Plug (1)
2	\odot SKC1920K99	Case Cover	(1)	33	QJS1920TN 2 Pin Socket (1)
3	SJF3057N	Terminal Plate	(1)	33	QJS1921TN 3 Pin Socket (1)
4	SMPM11	LED Holder	(1)	34	QTF1054 Fuse Holder (4)
5	SMN2000	Volume Angle	(1)	35	\odot SBC798-1 Button (1)
6	QMA4779	MIC Angel	(1)	35	\odot SBC798 Button (1)
7	SNE55	Earth Plate	(1)	SCREWS, NUTS & WASHERS	
8	SXDM24	Counter Pulley Ass'y	(1)	N1	QNQ1070 Nut (3)
9	SUS797-1	Holder Spring	(1)	N2	XNS8 Nut (2)
10	SGXSD225W-KM	Cassette Holder Ass'y	(1)	N3	XTV3+6BFN Tapping Screw $\phi 3 \times 6$ (3)
[10-1]	[QBP2006A]	Tape Pressure Spring	(2)	N4	XSS3+6S Screw $\phi 3 \times 6$ (2)
11	SGXSD250-SE	Damper Gear Ass'y	(1)	N5	XTV3+10BFN Tapping Screw $\phi 3 \times 10$ (1)
12	\odot SGYSB106-SE	Front Panel Ass'y	(1)	N6	XTB26+8J Tapping Screw $\phi 2.6 \times 8$ (3)
12	\odot SGYSB106-KE	Front Panel Ass'y	(1)	N7	XTBS3+8JFZ1 Tapping Screw $\phi 3 \times 8$ (1)
13	SMN2001-1	Button Angle	(1)	N8	XTV3+12G Tapping Screw $\phi 3 \times 12$ (5)
14	\odot SBC801A-1	Rec Button	(1)	N9	XTV3+8JR Tapping Screw $\phi 3 \times 8$ (8)
14	\odot SBC801A	Rec Button	(1)	N10	XTB3+8BFN Tapping Screw $\phi 3 \times 8$ (4)
15	\odot SBC802A-1	Play Button	(1)	N11	XTN3+10B Tapping Screw $\phi 3 \times 10$ (2)
15	\odot SBC802A	Play Button	(1)	N12	XTB3+6FR Tapping Screw $\phi 3 \times 6$ (2)
16	\odot SBC803A-1	Rew Button	(1)	N13	XTB3+12BFZ Tapping Screw $\phi 3 \times 12$ (1)
16	\odot SBC803A	Rew Button	(1)	N14	XWG3 Washer 3 ϕ (2)
17	\odot SBC804A-1	ff Button	(1)	N15	QBW2008 Washer (1)
17	\odot SBC804A	ff Button	(1)	N16	\odot SNE2125 Ornament Screw (4)
18	\odot SBC805A-1	Stop Button	(1)	N16	\odot SNE2125-1 Ornament Screw (4)
18	\odot SBC805A	Stop Button	(1)	N17	XTB3+10BFZ Tapping Screw $\phi 3 \times 10$ (1)
19	\odot SBC806A-1	Pause Button	(1)	N18	SHWM24H70 Washer (1)
19	\odot SBC806A	Pause Button	(1)	ACCESSORIES	
20	SUB255	Power Rod	(1)	A1 [EK]	SQFM54 Instruction Book (1)
21	\odot SBC666	Power Button	(1)	A1 [EG]	SQFM55 Instruction Book (1)
21	\odot SBC666-3	Power Button	(1)	A1 [other]	SQFM53 Instruction Book (1)
22	\odot SBC723-4	Push Button	(2)	A2 [XA]	Δ SJA168-1 AC Power Cord (1)
22	\odot SBC723-1	Push Button	(2)	A2 [XL]	Δ SJA173 AC Power Cord (1)
23	\odot SBC799-1	Select Button	(3)	A2 [EK]	Δ SFDAC05G02 AC Power Cord (1)
23	\odot SBC799	Select Button	(3)	A2	Δ SJA171 AC Power Cord (1)
24	\odot SBN1204-1	Input Volume Knob	(1)	[other]	
24	\odot SBN1204	Input Volume Knob	(1)	A3	SJP2264 Pin Cord (1)
25	\odot SBN1205-1	Balance Volume Knob	(1)	A4 [XA]	Δ SJP9215 Plug (1)
25	\odot SBN1205	Balance Volume Knob	(1)	PACKINGS	
26	QDB0143-2	Counter Belt	(1)	P1 [EK]	\odot SPGM83 Carton Box (1)
27	SHRM6	Sheet	(1)	P1 [EK] (K)	SPGM82 Carton Box (1)
28	\odot SYKM30	Cassette Lid Ass'y	(1)	P1 [XA]	SPGM84 Carton Box (1)
28	\odot SYKM31	Cassette Lid Ass'y	(1)	P1	\odot SPGM81 Carton Box (1)
29 [E]	SKMSB106-KE	Main Case Ass'y	(1)	[other]	
29 [EK]	SKMSB106-KK	Main Case Ass'y	(1)	P1	\odot SPGM80 Carton Box (1)
29 [XA]	SKMSB106-KA	Main Case Ass'y	(1)	[other]	
29 [XL]	SKMSB106-KL	Main Case Ass'y	(1)	P2	SPSM13 Cushion (L) (1)
29 [other]	SKMSB106-KG	Main Case Ass'y	(1)	P3	SPSM14 Cushion (R) (1)
[29-1]	[SKL293]	Case Foot	(4)	P4	SPSM15 Pad (1)
30	QJT1054	Contact	(5)	P5	XZB40X60A02 Poly Bag (1)
31	SJT30543-V	5 Pin Connector	(1)	P6	XZB18X15C05 Poly Bag (1)
					(Accessories)

CABINET PARTS LOCATION



Ref. No.	MECHANICAL PARTS
101	
102	
103	
104	
105	
106	
107	
108	
109	
110	
111	
112	
113	
114	
115	
116	
117	

MECHANICAL PARTS LOCATION

NOTES:

- When changing mechanism parts, apply the specified grease to the are marked "x" shown in the drawing "Mechanical Parts Location".

Ref. No.	Part Name	Part No.
①	ROCOL PASTE	RZZ0L06
②	FLOIL G-488M	SZZ0L28
③	FLOIL 947P	RZZ0L02
④	SILICONE OIL NO. 2	SZZ0L12
⑤	FLOIL G-488	SZZ0L10
⑥	FLOIL G-311S	SZZ0L26

SPECIFICATIONS

NOTE: The value indicated by the torque tape may fluctuate during torque measurement.
In that case, obtain the middle of the values.

Pressure of pressure roller	350 ± 50 g
Takeup tension * Use cassette torque meter QZZSRKCT	35~70 g·cm
Wow and flutter; (JIS) * Use test tape QZZCWAT	Less than 0.1% (WRMS)

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
MECHANISM PARTS																	
101	QWY4165G	R.P Head (1)	118	SMQ4790	Control Lever (1)	139	SMQ4834	Auto Lever (1)	161	SMQ4880	REC Function Lever (1)	183	SMQ4922	Damper Spring (1)	N60	SMQT1634	Screw $\phi 2 \times 7$ (2)
102	SMQ4596	Head Spring (2)	119	RFS379Z	Control Lever Spring (1)	140	SMQ4938	Auto Lever Collar (1)	162	SMQT1590	Ass'y Sub Chassis Ass'y (1)	184	SMQ4940	Kick Lever (1)	N61	XWG2	Washer 2 ϕ (1)
103	QWY2138G	E Head (1)	120	SMQ4792	Spring (1)	141	SMQ4836	Button Base (L) (1)	166	SMQ4888	Main Gear Spring (1)	185	SMQ4858	Button Lever Spring (2)	N63	SMQT1582	Collar Screw (1)
104	SMQ4768	Head Base (1)	121	SMQ4794	Brake Arm Ass'y (1)	142	SMQ4840	Button Base (R) (1)	167	SMQ4890	M. Trigger Arm Spring (1)	187	SMQT1453	Pinch Roller Spring (1)	N64	XYN2+C4	Screw $\phi 2 \times 4$ (2)
105	RFD135Z	Head Panel Ass'y (1)	122	SMQT1630	Cam Gear Spring (1)	143	SMQT1585	REC. Stopper (1)	168	SMQ4892	M. Trigger Arm Ass'y (1)	189	RFS378Z	RF Slide Lever Spring (1)	N66	XYN2+C5	Screw $\phi 2 \times 5$ (1)
106	SMQ4770	Head Panel Spring (1)	123	SMQ4800	Supply Reel Ass'y (1)	144	SMQT1586	REC. Button Lever (1)	169	SMQ4894	Main Gear (1)	190	RFS249Z	Spring (1)	N67	XYN2+C5	Screw $\phi 2 \times 5$ (1)
107	SMQ4772	Take Up Roller (1)	124	SMQT1636	Back Tension Spring (1)	145	SMQ4846	Play Button Lever (1)	170	SMQ4896	P Gear (1)	191	SMQT1631	RF Clutch Arm Spring (1)	N68	XSN2+6	Screw $\phi 2 \times 6$ (1)
108	SMQ4774	Function Lever (1)	125	SMQ4804	Take Up Reel Ass'y (1)	146	SMQ4848	RWD Button Lever (1)	171	SMQT1591	Main Belt (1)	192	RFS253Z	Spring (1)	N70	RFE133Z	E-Ring 1.5 ϕ Special (2)
109	SMQ4776-1	Stopper Pinch Roller Arm Ass'y (1)	126	SMQ4806	Sensing Piece (1)	147	SMQ4850	FF Button Lever (1)	172	SMQT1592	Flywheel Ass'y (1)	193	SMQT1588	Spring (1)	N71	SMQ4930	Polyslider Washer (3)
110	SMQT1458	Chassis (1)	127	SMQ4808	Sensing Piece Spring (1)	148	SMQ4852	Stop Button Lever (1)	173	SMQ4902	P. Trigger Arm Ass'y (1)	194	RFS248Z	Spring (1)	N72	XUC12FT	E-Ring 1.2 ϕ (1)
111	SMQ4778	REC Safety Lever (1)	128	SMQ4810	FF. Gear (1)	149	SMQ4854	Pause Button Lever (1)	174	SMQ4904	P. Trigger Arm Spring (1)				N74	XUC2FT	E-Ring 2.0 ϕ (2)
112	SMQ4780	Pack Hold Spring (1)	129	RFU16Z	Reel Base Ass'y (1)	150	SMQ4856	Button Lever Spring (3)	175	SMQ4906	Pause Arm Ass'y (1)				N75	XYN26+C6	Screw $\phi 2.6 \times 6$ (1)
113	SMQ4782	Flywheel Metal (1)	130	SMQ4814	T. Roller Kick Lever (1)	151	SMQ4858	Button Lever Spring (1)	176	SMQ4909	Pause Arm Spring (1)	SCREWS and NUTS					
114	RFY183Z	Eject Slider Lever (1)	131	SMQ4818	Sensing Lever (1)	152	SMQ4860	Button Lever Spring (1)	177	SMQ4910	Lift Arm Collar (1)	N51	SMQT1581	Collar Screw (1)	N76	XUC15FT	E-Ring 1.5 ϕ (1)
115	SMQ4786	Collar (1)	132	SMQ4820	Sensing Lever Spring (1)	153	SMQ2444	Pause Lever Spring (1)	178	SMQT1593	Lift Arm Ass'y (1)	N52	SMQ4838	Collar Screw (1)	N77	SMQ4932	Polyslider Washer (1)
116	SMQT1629	E.H. Base Spring (1)	133	SMQ4822	Pully (1)	154	SMQ4862	Stopper (1)	179	SMQT1594	Motor Ass'y (1)	N54	SMQ4870	Collar Screw (1)	N78	SMQ4934	Screw $\phi 2 \times 3$ (3)
117	SMQ4788	Collar (1)	134	SMQ4824	Full Auto Belt (1)	155	SMQT1587	Push Button (1)	180	SMQT1633	FM Hold Plate (1)	N55	SMQ4878	Collar Screw (1)	N79	XTN26+3	Screw $\phi 2.6 \times 3$ (1)
			135	SMQ4826	Cam Gear (1)	156		Function Lever (1)	181	SMQ4916	Motor Rubber (3)	N56	SMQ4918	Collar Screw (3)	N81	SMQ4936	Nylon Washer 2 $\times 5 \times 0.5$ (1)
			136	SMQT1583	RF Clutch Arm Ass'y (1)	157	SMQT1589	Switch Function Lever (1)	182	SMQT1595	Flywheel Patch Plate (1)	N57	SMQ4942	Collar Screw (3)	N82	SMQ1582	Collar Screw (3)
			137	SMQT1584	RF Belt (1)	158	SMQ4872	E Kick Lever (1)				N58	SMQT1454	Polyslider Washer (1)	N84	SMQ4944	Collar Screw (1)
			138	SMQT1632	RF Slide Lever Ass'y (1)							N59	XSN2+8	Screw $\phi 2 \times 8$ (2)	N87	XYN2+C5	Screw $\phi 2 \times 5$ (2)
															N88	SMQ4168	Collar Screw (1)

Dolby NR-Equipped Stereo Cassette Deck

RS-B106

DEUTSCH

DEUTSCH

■ MESSUNGEN UND EINSTELL METHODEN

Meßinstrumente

- Elektronisches Voltmeter (EVM)
- Oszilloskop
- Digitaler Frequenzmesser
- Audiofrequenz-Oszillator
- Dämpfungswiderstand
- Gleichstrom-Voltmeter
- Widerstand (600Ω)

Kopfazimut-Justierung

1. Die Anschlußverbindungen für die Testgeräte sind in Abb. 1 gezeigt.
2. Den Azimut-Justierungsteil (8kHz, -20dB) des Testbandes (QZZCFM) wiedergeben und die Winkeljustierungs-Einstellschraube so verstellen, daß der Ausgang vom linken und rechten Kanal maximal wird. (Wenn die Justierpositionen für den linken und rechten Kanal verschieden sind, ist eine Position zu finden, wo der Ausgang des linken und rechten Kanals ausgeglichen ist, und dann ist die Justierung durchzuführen.)
3. Gleichzeitig eine Lissajous-Wellenform ziehen und Phasenablenkung eliminieren.
4. Nach erfolgter Justierung sind die Bandführungs-Höhen-und-Winkeljustierschrauben zu sichern.

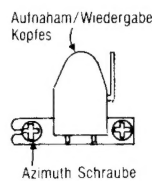


Abb. 2

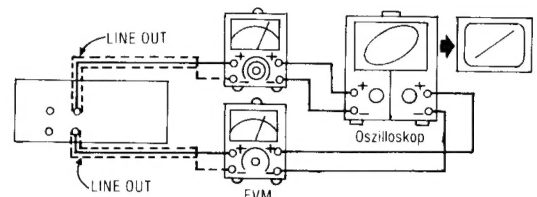


Abb. 1

Bandgeschwindigkeits-Justierung

1. Der Testaufbau ist in Abb. 3 gezeigt.
2. Den mittleren Teil des Testbandes (QZZCWAT) wiedergeben.
3. Den Drehwiderstand im Motor so justieren, daß die Ausgangsleistung dem Standard-Wert entspricht.

Standard-Wert: 3000 ± 10 Hz

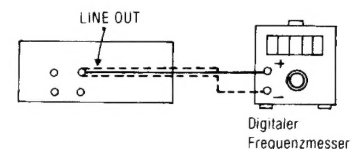


Abb. 3

Wiedergabe-Frequenzgang

1. Der Testaufbau ist in Abb. 4 gezeigt.
2. Den Wiedergabe-Frequenzgangteil (315Hz, 12,5kHz~63Hz, -20dB) des Testbandes (QZZCFM) wiedergeben.
3. Überprüfen, ob der Frequenzgang innerhalb des in Abb. 5 für den linken und rechten Kanal gezeigten Bereichs liegt.

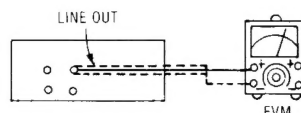


Abb. 4

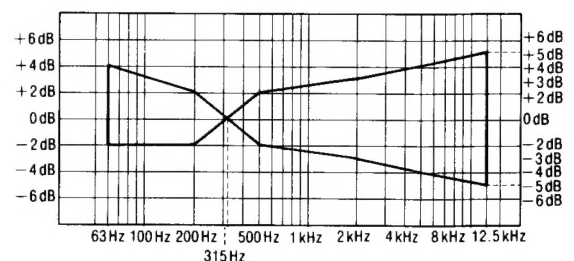


Abb. 5

Justierung des Wiedergabe-Verstärkungsgrades

1. Der Testaufbau ist in Abb. 4 gezeigt.
2. Den für den Wiedergabe-Verstärkungsgrad justierten Teil (315Hz, 0dB) des Testbandes (QZZCFM) wiedergeben.
3. Den Drehwiderstand 1, (linker Kanal) (Drehwiderstand 2 (rechter Kanal)) so justieren, daß die Ausgangsleistung dem Standard-Wert entspricht.

Standard-Wert: $0,4 \text{ V} \pm 0,5 \text{ dB}$ (0,02 V)

Gesamtfrequenzgang

1. Der Testaufbau ist in Abb. 6 gezeigt.
2. Den Bandsorten-Wahlschalter in die "Normal"-Position einstellen.
3. Eine Normalband-Leercassette (QZZCRA) einsetzen und aufnehmen, während ein Signal von nacheinander 50Hz, 100Hz, 200Hz, 500Hz, 1kHz, 4kHz, 8kHz und 10kHz bei 20dB, abgeschwächt vom Referenz-Eingangspegelsignal (1kHz, -24dB) eingegeben wird.
4. Das in Schritt 2 aufgezeichnete Signal wiedergeben und prüfen, ob der Pegel jeder Ausgangsfrequenz im Bereich liegt, der in Abb. 7 im Vergleich zur Referenzfrequenz (1kHz) gezeigt wird.
5. Falls er nicht im Standard-Bereich liegt, ist der Vormagnetisierungsstrom mit Drehwiderstand 101 (linker Kanal) (Drehwiderstand 102 (rechter Kanal)) so zu justieren, daß der Frequenzpegel innerhalb des Standards zu liegen kommt.
 - Erhöhter Pegel im Frequenzbereich..... Den Vormagnetisierungsstrom erhöhen.
 - Reduzierter Pegel im Frequenzbereich..... Den Vormagnetisierungsstrom senken.
6. Anschließend das auf der CrO₂-Leerband-Cassette (QZZCRX) und der Reineisenband-Leercassette (QZZCRZ) aufgezeichnete Signal auf 12,5kHz erhöhen und auf gleiche Weise justieren, wie vorgehend beschrieben. Dann überprüfen, ob der Frequenzpegel innerhalb des in Abb. 8 gezeigten Bereichs liegt.

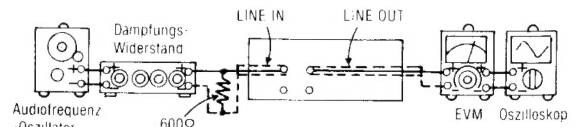


Abb. 6

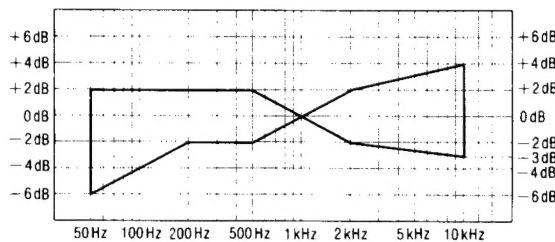


Abb. 7

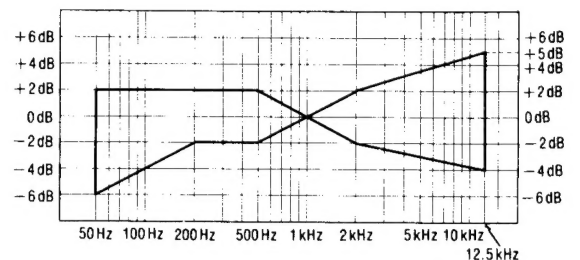


Abb. 8

Justierung des Gesamtverstärkungsgrades

1. Der Testaufbau ist in Abb. 6 gezeigt.
2. Den Bandsorten-Wahlschalter in die "Normal"-Position einstellen.
3. Eine Normalband-Leercassette (QZZCRA) einsetzen und im Aufnahmepause-Zustand des Gerätes das Referenzsignal (1kHz, -24dB) eingeben.
4. Die Ausgangsleistung mit dem Dämpfungswiderstand auf 0,42V justieren und dann aufnehmen.
5. Das in Schritt 3 aufgezeichnete Signal wiedergeben und überprüfen, ob die Ausgangsleistung dem Standard-Wert entspricht.
6. Falls sie nicht dem Standard-Wert entspricht, ist der Drehwiderstand 3 (linker Kanal) (Drehwiderstand 4 (rechter Kanal)) zu justieren, und dann sind die Schritte (2), (3) und (4) zu wiederholen, bis die Ausgangsleistung dem Standard-Wert entspricht.

Standard-Wert; 0,4V ± 0,05V

Dolby-Rauschunterdrückungs-Schaltkreis

1. Der Testaufbau ist in Abb. 9 gezeigt.
2. Eine Normalband-Cassette einsetzen und im Aufnahmepause-Zustand des Gerätes ein 5kHz-Signal eingeben.
3. Mit dem Dämpfungswiderstand so justieren, daß die Ausgangsleistung zwischen Anschluß ⑥ (linker Kanal) (Anschluß ⑩ (rechter Kanal)) des IC403 und Masse 12.3mV beträgt.
4. Den Rauschunterdrückungs-Schalter (NR) einschalten und prüfen, ob der Pegel wie vorgeschrieben gegenüber dem Pegel im rauschunterdrückungsfreien Zustand verändert wird.

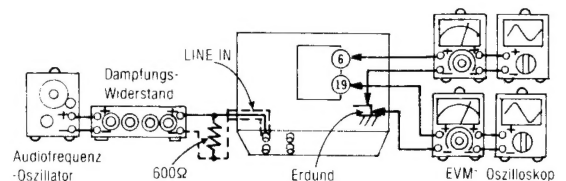


Abb. 9

Standard-Wert: 8 ± 1,5dB

FRANÇAIS

METHODES DES MESURES ET REGLAGES

Appareils de mesure

- Voltmètre électronique
- Oscilloscope
- Compteur de fréquence numérique
- Oscillateur de fréquence audio
- A.T.T. (Atténuateur)
- Voltmètre à C.C.
- Résistance (600Ω)

Réglage de l'angle des têtes de lecture

1. Le raccordement de l'équipement d'essai est montré à la Fig. 1.
2. Faire jouer la partie réglée azimutale (8kHz, -20dB) de la bande d'essai (QZZCFM) et régler la vis de mise au point azimutale de telle sorte que les puissances de sortie du canal de gauche et du canal de droite soient au maximum.
(Si les positions de réglage du canal de gauche et du canal de droite sont différentes, trouver une position où les puissances de sortie des canaux de gauche et de droite soient équilibrées, puis effectuer la mise au point.)
3. En même temps, établir une forme d'onde de Lissajous et éliminer la déviation de phase.
4. Après le réglage, bloquer les vis du réglage angulaire et de la hauteur des guides de bande.

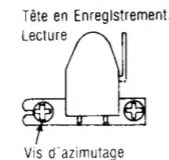


Fig. 2

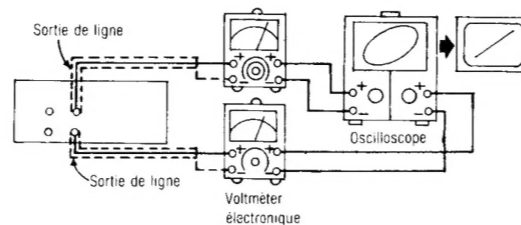


Fig. 1

Réglage de la vitesse de défilement de la bande

1. Le raccordement de l'équipement d'essai est montré à la Fig. 3.
2. Faire jouer la partie centrale de la bande d'essai (QZZCWAT).
3. Régler VR dans le moteur de telle sorte que la puissance de sortie soit en deçà de la normale.

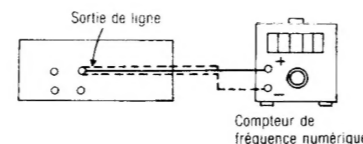


Fig. 3

Valeur normalisée: $3000 \pm 10 \text{ Hz}$

Réponse en fréquence de la lecture

1. Le raccordement de l'équipement d'essai est montré à la Fig. 4.
2. Faire jouer la partie de la réponse en fréquence de la lecture (315Hz, 12,5kHz~63Hz, -20dB) de la bande d'essai (QZZCFM).
3. Vérifier que la fréquence soit en deçà de la plage montrée à la Fig. 5, à la fois pour le canal de gauche et le canal de droite.

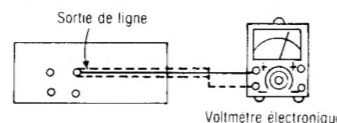


Fig. 4

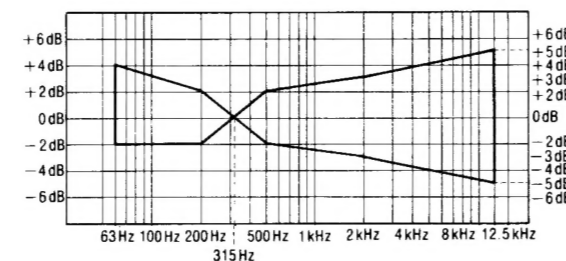


Fig. 5

Réglage d'amplification de la lecture

1. Le raccordement de l'équipement d'essai est montré à la Fig. 4.
2. Faire jouer la partie réglée d'amplification de la lecture (315Hz, 0dB) de la bande d'essai (QZZCFM).
3. Régler VR 1 (canal de gauche) [VR 2 (canal de droite)] de telle sorte que la puissance de sortie soit en deçà de la normale.

Valeur normalisée: $0,4 \pm 0,5 \text{ dB (0,02 V)}$

Réponse en fréquence globale

1. Le raccordement de l'équipement d'essai est montré à la Fig. 6.
2. Régler le commutateur sélecteur de bande sur la position normale.
3. Installer une bande vierge normale (QZZCRA) et enregistrer en appliquant un signal (50Hz, 100Hz, 200Hz, 500Hz, 1kHz, 4kHz, 8kHz et 10kHz) de 20dB atténués provenant du signal du niveau d'entrée, de référence (1kHz, -24dB).
4. Faire jouer le signal enregistré à l'étape 2 et vérifier que le niveau de chaque fréquence de sortie soit en deçà de la plage montrée à la Fig. 7 en comparaison avec la fréquence de référence (1kHz).
5. S'il n'est pas en deçà de la plage standard, régler le courant de polarisation avec VR101 (canal de gauche) [VR102 (canal de droite)], de telle sorte que le niveau de fréquence soit en deçà de la normale.
 - Niveau vers le haut dans la plage de fréquence élevée..... Augmenter le courant de polarisation.
 - Niveau vers le bas dans la plage de fréquence élevée..... Diminuer le courant de polarisation.
6. Après cela, amplifier le signal enregistré sur la bande vierge CrO₂ (QZZCRX) et la bande vierge métallisée (QZZCRZ) jusqu'à 12,5kHz et régler de la même manière que celle mentionnée ci-dessus. Puis, vérifier que le niveau de fréquence soit en deçà de la plage montrée à la Fig. 8.

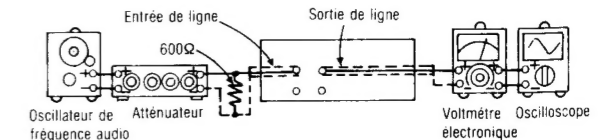


Fig. 6

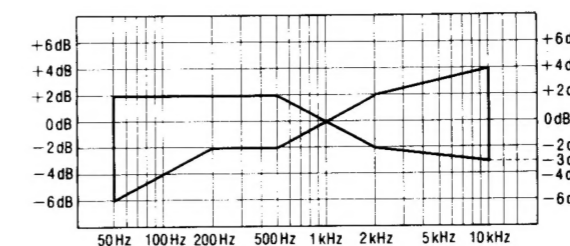


Fig. 7

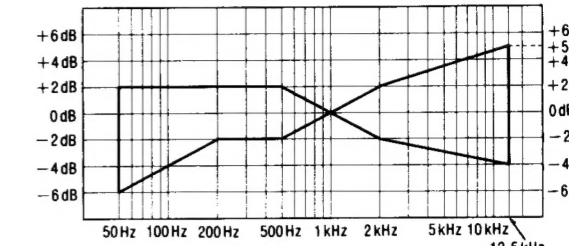


Fig. 8

Réglage d'amplification globale

1. Le raccordement de l'équipement d'essai est montré à la Fig. 6
2. Régler le commutateur sélecteur de bande sur la position normale.
3. Installer une bande vierge normale (QZZCRA) et appliquer le signal de niveau d'entrée de référence (1kHz, -24dB) sur le mode d'intermission d'enregistrement.
4. Régler la puissance de sortie 0,42V avec l'atténuateur, puis enregistrer.
5. Faire jouer le signal enregistré à l'étape 3 et vérifier que la puissance de sortie soit en deçà de la normale.
6. Si elle n'est pas en deçà de la normale, régler VR3 (canal de gauche) [VR4 (canal de droite)] et répéter les étapes (2), (3) et (4) jusqu'à ce que la puissance de sortie soit en deçà de la normale.

Valeur normalisée: $0,4 \pm 0,05 \text{ V}$

Circuit de réduction des bruits Dolby

1. Le raccordement de l'équipement d'essai est montré à la Fig. 9.
2. Installer une bande normale et appliquer un signal de 5kHz sur le mode d'intermission d'enregistrement.
3. Régler avec l'atténuateur de telle sorte que la puissance de sortie entre la borne ⑥ (canal de gauche) [borne ⑨ (canal de droite)] de IC403 et la masse soit de 12,3mV.
4. Mettre en marche le commutateur de réduction des bruits et vérifier que le niveau change tel qu'il est spécifié à partir du niveau d'entrée sur le mode de sortie de réduction des bruits.

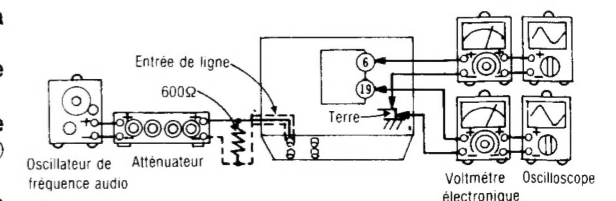


Fig. 9

Valeur normalisée: $8 \pm 1,5 \text{ dB}$

MÉTODOS DE AJUSTE Y MEDIDA

Instrumento de medición

- EVM (Voltímetro electrónico)
- Osciloscopio
- Frecuencímetro digital
- Oscilador AF

- ATT (Atenuador)
- Voltímetro CC
- Resistor (600Ω)

Ajuste acimutal de cabeza

1. La conexión del equipo de prueba se muestra en la Fig. 1.
2. Reproducir la parte ajustada de acimut (8kHz, -20dB) de la cinta de prueba (QZZCFM) y regular el tornillo de ajuste de ángulo de manera que las salidas de CH-I y CH-D sean maximizadas.
(Cuando las posiciones de ajuste sean diferentes de CH-I y CH-D, encontrar una posición donde las salidas de CH-I y CH-D estén equilibradas y, luego, hacer el ajuste.)
3. Al mismo tiempo, trazar una forma de onda de Lissajous y eliminar la deflexión de fase.
4. Después del ajuste, fije los tornillos de ajuste de altura y ángulo de guía de cinta.

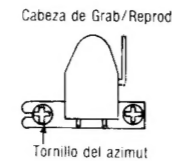


Fig. 2

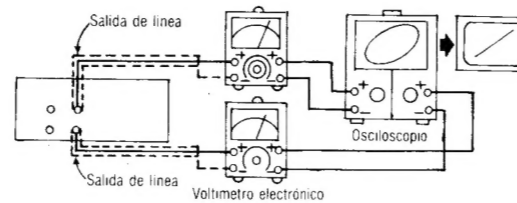


Fig. 1

Ajuste de velocidad de cinta

1. La conexión del equipo de prueba se muestra en la Fig. 3.
2. Reproducir la parte media de la cinta de prueba (QZZCWAT).
3. Ajustar el RV del motor de manera que la salida esté dentro de la estándar.

Valor estándar: $3000 \pm 10 \text{ Hz}$

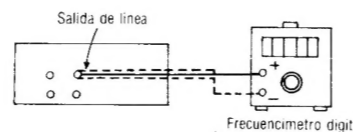


Fig. 3

Respuesta de frecuencia de reproducción

1. La conexión del equipo de prueba se muestra en la Fig. 4.
2. Reproducir la parte de respuesta de frecuencia de reproducción (315Hz, 12,5kHz - 63Hz, -20dB) de la cinta de prueba (QZZCFM).
3. Comprobar que la frecuencia esté dentro de la gama mostrada en la Fig. 5 tanto para CH-I como para CH-D.

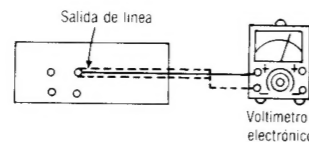


Fig. 4

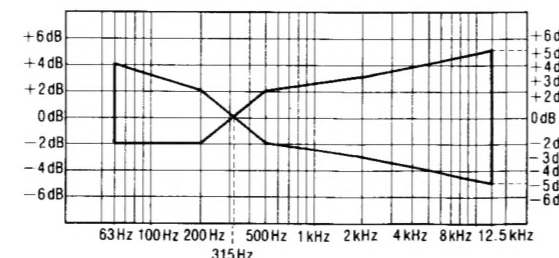


Fig. 5

Ajuste de ganancia de reproducción

1. La conexión del equipo de prueba se muestra en la Fig. 4.
2. Reproducir la parte ajustada de la ganancia de reproducción (315Hz, 0dB) de la cinta de prueba (QZZCFM).
3. Ajustar RV1 (CH-I) (RV2 (CH-D)) de manera que la salida esté dentro de la estándar.

Valor estándar: $0,4 \pm 0,5 \text{ dB}$ (0,02V)

Respuesta de frecuencia total

1. La conexión del equipo de prueba se muestra en la Fig. 6.
2. Poner el interruptor selector de cinta en la posición "normal".
3. Colocar una cinta virgen normal (QZZCRA) y grabar aplicando señal (50Hz, 100Hz, 200Hz, 500Hz, 1kHz, 4kHz, 8kHz y 10kHz), 20dB atenuada de la señal de nivel de entrada de referencia (1kHz, -24dB).
4. Reproducir la señal grabada en el paso 2 y comprobar que el nivel de cada frecuencia de salida esté dentro de la gama mostrada en la Fig. 7. en comparación con la frecuencia de referencia (1kHz).
5. Si no está dentro de la gama estándar, ajustar la corriente de polarización mediante RV101 (CH-I) (RV102 (CH-D)) de manera que el nivel de frecuencia esté dentro del estándar.
 - Subir el nivel en la gama de alta frecuencia.....Incrementar la corriente de polarización.
 - Bajar el nivel en la gama de alta frecuencia.....Disminuir la corriente de polarización.
6. Después de eso, incrementar la señal grabada en la cinta virgen CrO₂ (QZZCRX) y la cinta virgen metálica (QZZCRZ) hasta 12,5kHz y ajustar de la misma manera como mencionado arriba y comprobar que el nivel de frecuencia esté dentro de la gama mostrada en la Fig. 8.

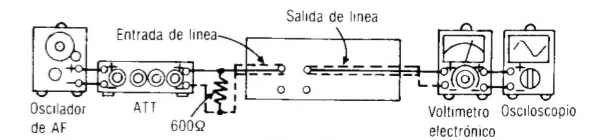


Fig. 6

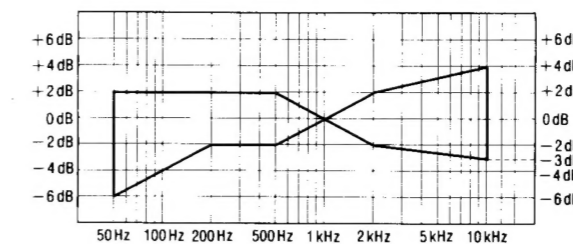


Fig. 7

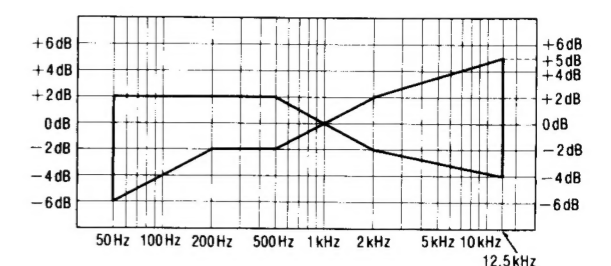


Fig. 8

Ajuste de ganancia total

1. La conexión del equipo de prueba se muestra en la Fig. 6.
2. Poner el interruptor selector de cinta en la posición "normal".
3. Colocar una cinta virgen normal (QZZCRA) y aplicar la señal de nivel de entrada de referencia (1kHz, -24dB) en la modalidad de pausa de grabación.
4. Ajustar la salida 0,42V mediante atenuador y, luego, grabar.
5. Reproducir la señal grabada en el paso 3 y comprobar que la salida esté dentro de la estándar.
6. Si no está dentro de la estándar, ajustar RV3 (CH-I) (RV4 (CH-D)) y repetir el paso (2), (3) y (4) hasta que la salida esté dentro de la estándar.

Valor estándar: $0,4 \text{ V} \pm 0,05 \text{ V}$

Circuito RR Dolby

1. La conexión del equipo de prueba se muestra en la Fig. 9.
2. Colocar una cinta normal y aplicar señal 5kHz en la modalidad de pausa de grabación.
3. Ajustar mediante atenuador de manera que la salida entre terminal ⑥ (CH-I) (terminal ⑩ (CH-D)) de IC403 y tierra sea 12,3mV.
4. Prender el interruptor RR y comprobar que el nivel cambia como especificado por el nivel en la modalidad de salida RR.

Valor estándar: $8 \pm 1,5 \text{ dB}$

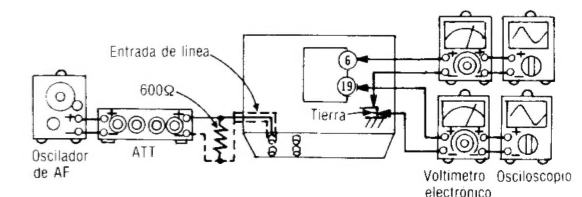


Fig. 9